

CLAIMS IN CLEAN FORM

1. (AMENDED) A playback system for reproducing audio data and reading acoustic control data from a recording medium, said acoustic control data including information related to the characteristics of the original acoustic environment associated with the production of said recording media, comprising:

a demultiplexer for retrieving audio data and acoustic control data,
said acoustic control data providing a predetermined number N of inputs to

gain and phase circuits,
delay and reverberation circuits,
equalizer circuits, and
gain/attenuation circuits,

said gain/attenuation circuits connected to output to a second predetermined number M of summation channels,

said audio data feeding serially through said

gain and phase circuits,
delay and reverberation circuits, and
equalizer circuits;

wherein the operation of said gain and phase circuits, said delay and reverberation circuits and said equalizer circuits is adjusted in accordance with said acoustic control data to replay said audio data by recreating said original acoustic environment.

2. (AMENDED) The playback system for reproducing audio data and reading acoustic control data of claim 1 wherein said audio signals are replayed at a listener site, further comprising a listener input circuit connected to provide signals, said listener input signals

providing information indicative of the local characteristics of the listener site.

3. (AMENDED) The playback system for reproducing audio data and reading acoustic control data of claim 1 further comprising a player type register providing a signal indicative of parameters of the recording medium to said gain and phase circuits, delay and reverberation circuits, and equalizer circuits to provide information indicative of the characteristics of a player for the media, a player type register providing a signal indicative of parameters of the recording medium to said gain and phase circuits, delay and reverberation circuits, and equalizer circuits to provide information indicative of the characteristics of a player for said recording medium.

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4. (AMENDED) The playback system for reproducing audio data and reading acoustic control data of claim 2 further comprising a player type register providing a signal indicative of parameters of the recording medium to said gain and phase circuits, delay and reverberation circuits, and equalizer circuits to provide information indicative of the characteristics of a player for said recording medium.

Claims 18-20 are cancelled.

21. (AMENDED) A playback system for reproducing audio signals from a data stream containing audio and control data, said control data being related to characteristics related in the original acoustic environment in which said audio data has been recorded, said system comprising:

a demultiplexer arranged to separate said audio and control data; and

a playback circuit adapted to convert said audio data into audio signals at a local playback site in accordance with said control data to recreate the original acoustic environment.

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24. (AMENDED) The playback system of claim 21 wherein said playback circuit includes an adapter circuit that changes said control data in accordance with local data indicative of physical conditions associated with the replay.

26. (AMENDED) The playback system of claim 24 further comprising a closed loop back circuit adapted to automatically determine said local data.

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27. (AMENDED) The playback system of claim 26 wherein said closed loop back circuit includes a speaker arranged to receive and play an acoustic test signal and a microphone arranged to sense a response corresponding to said acoustic test signal.

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31. (AMENDED) A playback system for reproducing audio signals from a data stream containing audio and control data with information indicative of recording conditions in an original acoustic environment during the recording of said audio signals, said system comprising:

a demultiplexer arranged to separate said audio and control data; and
a playback circuit adapted to convert said audio data into audio signals in accordance with said control data to compensate said audio signals and recreate said original acoustic environment.

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33. (NEW) A playback system for generating sounds from a medium recorded in an acoustical environment, said medium including musical program data and acoustic control data, said musical program data corresponding to a musical program, said acoustic control data being indicative of N control signals affecting the manner in which said musical program is to be played and including data related to characteristics of said acoustic environment, said playback

system comprising:

a demultiplexer for selectively retrieving said musical program data and said control data;

a playback circuit including a gain control and a phase control circuit, said playback circuit receiving said musical program data and operating on said musical program in accordance with said N control signals to generate audio signals over a predetermined number of channels M, wherein said audio signals are played in a replay acoustic environment to recreate said musical program approximately as recorded in said original acoustic environment.

34. (NEW) The system of claim 33 wherein said playback circuit includes a delay circuit, a reverberation circuit and a variable gain control circuit, said playback circuit receiving said acoustic control data and adjusting the operation of said circuits in accordance with said acoustic control data.

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35. (NEW) The system of claim 33 further comprising a customer input circuit connected to provide customer control signals from a customer, said playback circuit being adapted to alter at least some of said plurality N of control inputs in accordance with said customer input control signals.

36. (NEW) The system of claim 35 wherein said customer input circuit is adapted to receive signals indicative of said replay acoustic environment.

37. (NEW) The system of claim 33 further comprising a closed loop control circuit adapted to determine the acoustic characteristics of said replay acoustic environment, said replay circuit being adapted to modify said N control circuits in accordance with said replay.

38. (NEW) The system of claim 37 wherein said closed loop control circuit includes a test generator adapted to generate test signals, and a microphone adapted to sense sounds in said replay environment corresponding to said test signals, said microphone generating a microphone output indicative of said replay characteristics.
